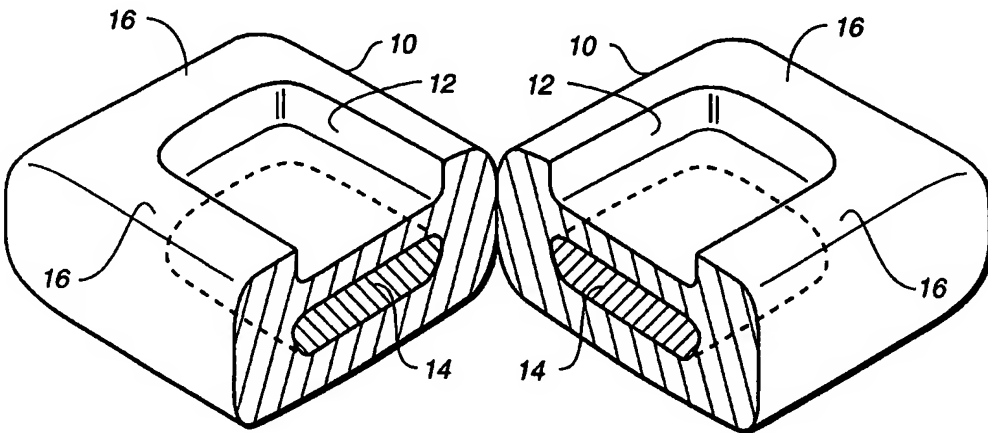




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/US99/02409  <b>(22) International Filing Date:</b> 4 February 1999 (04.02.99)  <b>(30) Priority Data:</b> 09/020,786      9 February 1998 (09.02.98)      US  <b>(71)(72) Applicant and Inventor:</b> PODKOMORKA, Michael, P. [US/US]; 857 Abbie Street, Pleasanton, CA 94566 (US).  <b>(74) Agents:</b> CHICKERING, Robert, B. et al.; Flehr, Hohbach, Test, Albritton & Herbert LLP, Suite 3400, Four Embarcadero Center, San Francisco, CA 94111-4187 (US).		<b>(81) Designated States:</b> CA, JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> REUSABLE BAR OF SOAP  <div style="text-align: center;">  </div> <b>(57) Abstract</b>  A bar of soap (10) having a recessed area (12) with side edges (16) and a center core region (14) that is approximately the same dimensions as the recessed area. The outer region of the bar of soap (10) has a first color or texture and the core region (14) has a second, different color or texture.		

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## REUSABLE BAR OF SOAP

### Technical Field

The present invention pertains to bar soap and, more particularly, to an improved design for bar soap of the type used for daily cleansing.

### 5 Background Art

Patents have issued to date that disclose inventions for improvement in bar soap design, some of which address the problem of handling the bar soap once it is reduced to a fraction of its original size. However, none utilize the more practical and efficient design and methodology of the present invention.

10 U.S. Patent No. 5,211,506 of Dublin discloses a bar soap having a soap impregnated core of either a sponge material or filament, which permits ease of use of the bar soap as its size reduces and also prevents breaking. In addition, the sponge core can be used as a general purpose sponge once the soap is completely used.

15 U.S. Patent No. 3,773,672 of Bredice discloses a bar soap having a plate-like insert at the center of the bar. The center plate prevents breakage of the soap as the soap is used and reduces in size. U.S. Patent No. 4,181,695 of Rickert and No. 4,308,157 of Di Giovanna disclose a similar type bar inserts.

20 U.S. Patent No. 3,925,225 of Morrison discloses a double soap bar with a first soap bar having a cavity therein for a second, smaller soap bar to be inserted to form a single soap unit for wrapping purposes. In use, either the smaller soap bar can be used for facial cleansing or the larger soap bar without the smaller bar can be used for general bodily cleansing.

The present invention provides a simpler, more practical novel bar soap design for handling reduced size bars unlike existing bar soaps.

### **Disclosure of Invention**

Briefly described, the present invention comprises a bar of soap including  
5 an outer region having a first indicator, such as color or texture, and a center core region having a second indicator, of a different color or texture. The outer region has a recessed area, and the center core region has a size approximately equivalent to the size of the recessed area, so that the center core region, after the outer region has washed away during use of the bar of soap, can be placed within the recessed  
10 area of a second, similar bar of soap in a manner where the core region is held on the second bar of soap. In this way, the entire bar of soap can be used and there is no need to throw away an unusable soap bar portion.

An aspect of the invention includes the outer region having side edges that define the recessed area. The core region can be held on the second bar of soap  
15 at least partially by the side edges of the second bar of soap. The depth of the recessed area is equivalent to the height of the core region, but a shallower recessed area can work satisfactorily.

These and other features, objects, and advantages of the present invention will become apparent from the following description of the best mode for carrying  
20 out the invention, when read in conjunction with the accompanying drawings, and the claims, which are all incorporated herein as part of the disclosure of the invention.

### **Brief Description of the Drawings**

Throughout the several views, like reference numerals refer to like parts,  
25 wherein:

Fig. 1 is a top plan view of the bar soap of the present invention;

Fig. 2 is a side elevation view of the bar soap of Fig. 1;

Fig. 3 is an end elevation view of the bar soap of Fig. 1;

Fig. 4 is a cut-away, opened pictorial view of the bar soap of Fig. 1;

Fig. 5 is a sectional view of the bar soap of Fig. 1;

Fig. 6 is an exploded view of the bar soap of Fig. 1 with a second bar soap reduced in size to its core; and

Fig. 7 is an assembled pictorial view of the bar soap components of

5 Fig. 6.

### **Best Mode of Carrying Out the Invention**

Reference will now be made in detail to the preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings.

10 While the invention will be described in conjunction with the preferred embodiments, it will be understood that the described embodiments are not intended to limit the invention specifically to those embodiments. On the contrary, the invention is intended to cover alternatives, modifications and equivalents, which may be included within the spirit and scope of the invention  
15 as defined by the appended claims.

Referring to Figs. 1-3, the bar soap 10 of the present invention is generally rectangular in shape in the manner of the majority of commercially available soap bars and includes a top side recessed cavity 12 that is narrower in both width and length than bar soap 10 and has a depth of approximately one quarter of the height  
20 of bar soap 10. Cavity 12, thus, has a shape that a rectangular bar of soap tends to reduce in size to after repeated use.

Referring to Figs. 4 and 5, bar soap 10 includes an inner core region 14 that is either visually different from the rest of bar soap 10, such as by having a different color, or has a different tactile feel, such as by being impregnated with a granular  
25 material. In the claims that follow, the term "indicator" is used to mean either color or texture or any other type of look, feel, smell, design, pattern, etc. that can differentiate the core region from the rest of the bar soap. The shape and size of core region 14 approximates the shape and size of cavity 12. However, the depth of cavity 12 may be less than the height of core region 14.

30 After repeated use of bar soap 10, the size of the bar reduces down uniformly to the size of core region 12, leaving just the core region as the remaining part of

the bar soap. At this point, either the color of the bar soap changes, due to exposure of the core region, or the tactile feel of the core region becomes apparent. In either case, a user is provided an indication that the core region can be placed within the cavity of a new bar of soap.

5           Fig. 6 shows an exploded view of a used, reduced size core region 14 and a second, new bar of soap 10'. The shape and size of cavity 12' allows core region 14 to be placed within the cavity and to be held therein by the side edges 16 that define cavity 12'. It is not necessary that the depth of cavity 12 be equivalent to the height of core region 14, so long as side edges 16 have sufficient height to hold  
10 the core region onto the new bar of soap 10' until the core region and new bar adhere to each other or meld together to become an integral unit due to the affect of warm water. This is shown in Fig. 7.

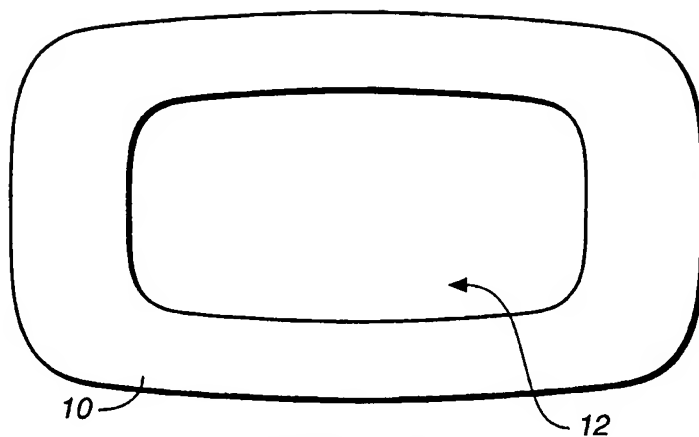
          The new bar of soap 10' with added core region 14, in addition to its own core region 14', can then be used like a new bar of soap. The added core region  
15 of different color or texture will wear away before the new bar of soap reduces in size to its own core region. At that point, the remaining core region is placed in yet a third, new bar of soap. The process repeats indefinitely and no small bar soaps are wasted, become broken, or are thrown away. In this manner, the entire bar of soap is used with no waste, and the prior problem of disposing of soap bars reduced  
20 in size has been eliminated.

          The foregoing descriptions of specific embodiments of the present invention have been presented for purposes of illustration and description. They are not intended to be exhaustive or to limit the invention to the precise forms disclosed, and obviously many modifications and variations are possible in light  
25 of the above teaching. The embodiments were chosen and described in order to best explain the principles of the invention and its practical application, to thereby enable others skilled in the art to best utilize the invention and various embodiments with various modifications as are suited to the particular use contemplated. It is intended that the scope of the invention be defined by the Claims  
30 appended hereto when read and interpreted according to accepted legal principles such as the doctrine of equivalents and reversal of parts.

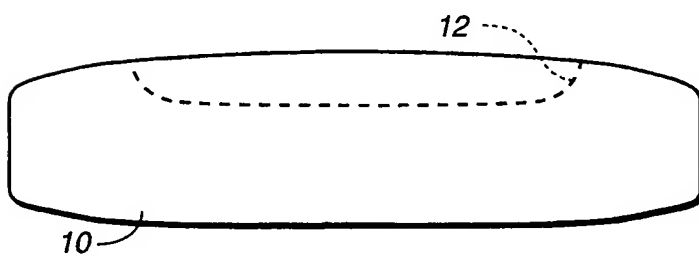
**What is claimed is:**

1. A bar of soap, comprising  
an outer region having a first indicator,  
a center core region having a second indicator,  
5 the outer region having a recessed area,  
the center core region having a size approximately equivalent to the size  
of the recessed area,  
so that the center core region, after the outer region has washed away during  
use of the bar of soap, can be placed within the recessed area of a second, similar  
10 bar of soap in a manner where the core region is held on the second bar of soap.
2. The bar of soap of claim 1 wherein,  
the outer region includes side edges that define the recessed area and wherein  
the core region can be held on the second bar of soap at least partially by the side  
edges of the second bar of soap.
- 15 3. The bar of soap of claim 1 wherein,  
the length and width dimensions of the recessed area are at least as great  
as the length and width dimensions of the core region.
4. The bar of soap of claim 1 wherein,  
the indicator for the outer and core regions is color.
- 20 5. The bar of soap of claim 1 wherein,  
the indicator for the outer and core regions is texture.

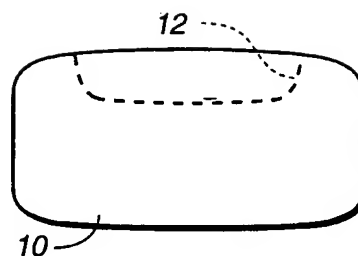
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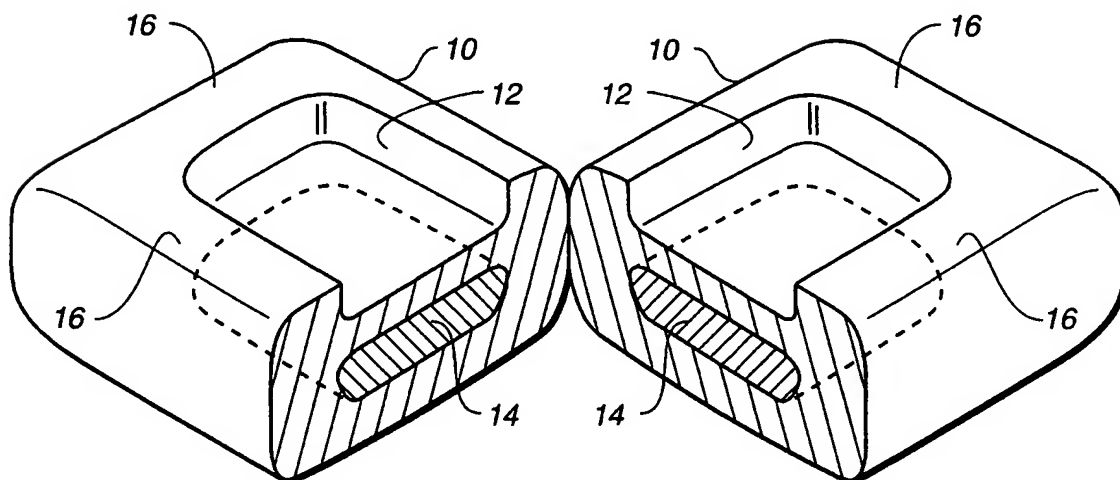
**FIG.\_1**



**FIG.\_2**



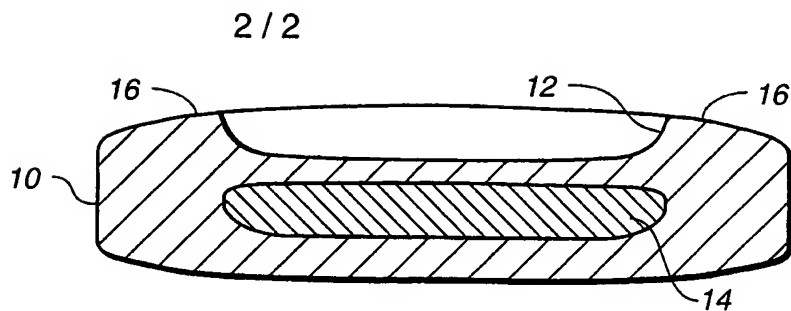
**FIG.\_3**



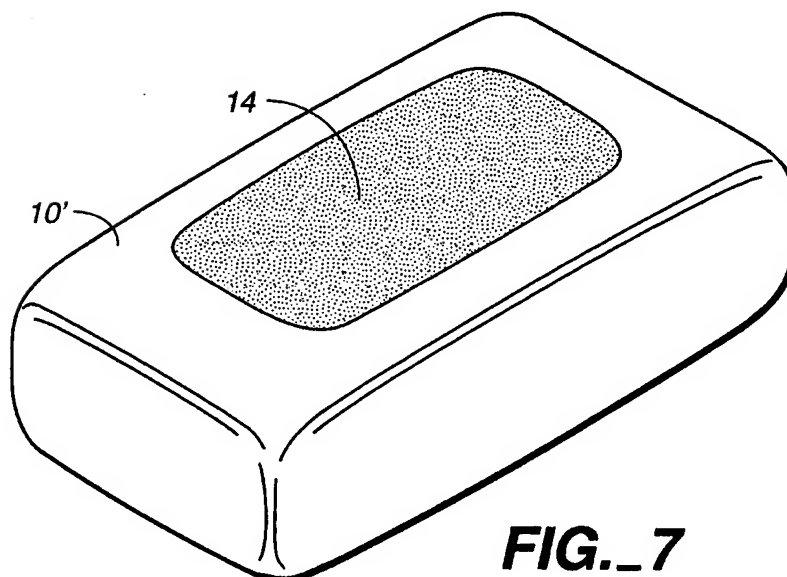
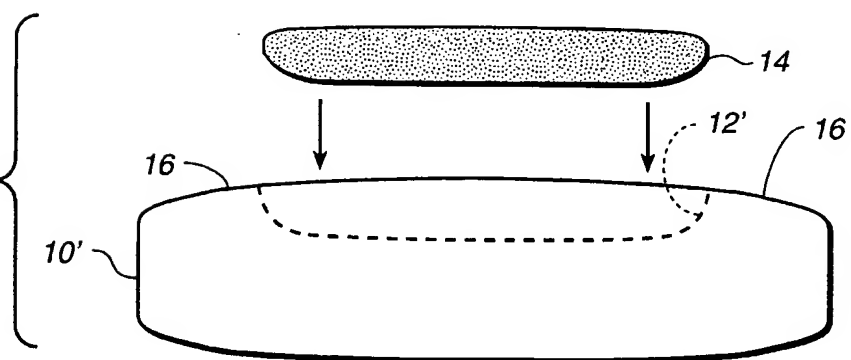
**FIG.\_4**



**FIG.\_5**



**FIG.\_6**



**FIG.\_7**

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/02409

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : C11D 17/00

US CL : 510/141, 143, 144, 146

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 510/141, 143, 144, 146

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
APS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 1,495,978 A (ANDERSON) 03 June 1924, col. 1, lines 32-col. 2, line 61.	1-5 — 1-5
X — Y	US 3,925,225 A (MORRISON) 09 December 1975, col. 2, lines 11-44, col. 1, lines 20-25.	1-5 — 1-5
X — Y	US 5,250,210 A (VON CULIN) 05 October 1993, col. 1, lines 21-43, col. 3, lines 4-20.	1-5 — 1-5

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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